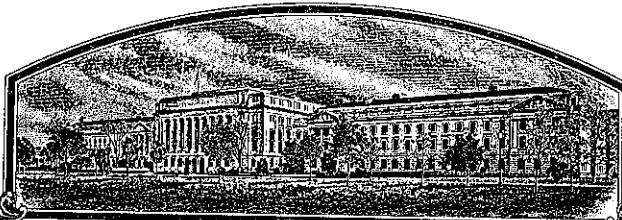


No.

9500257



THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

Terral-Norris Seed Company

Whereas, THERE HAS BEEN PRESENTED TO THE

Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED DISTINCT VARIETY OF SEXUALLY REPRODUCED, OR TUBER PROPAGATED, PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF TWENTY YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, OR IMPORTING IT, OR EXPORTING IT, OR CONDITIONING IT FOR PROPAGATION, OR STOCKING IT FOR ANY OF THE ABOVE PURPOSES, OR USING IT IN PRODUCING A DIFFERENT VARIETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT OF 1930 (34 STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

SOYBEAN

'Terral TV 5495'



Attest:

Martha A. [Signature]
Commissioner
Plant Variety Protection Office
Agricultural Marketing Service

In Testimony Whereof, I have hereunto set my hand and caused the seal of the Plant Variety Protection Office to be affixed at the City of Washington, D.C. this thirtieth day of June in the year of our Lord one thousand nine hundred and ninety-seven.

[Signature]
Secretary of Agriculture

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
SCIENCE DIVISION - PLANT VARIETY PROTECTION OFFICE

The following statements are made in accordance with the Privacy Act of 1974 (5 U.S.C. 552a).

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE
(Instructions and information collection burden statement on reverse)

Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). Information is held confidential until certificate is issued (7 U.S.C. 2426).

1. NAME OF APPLICANT(S) (as it is to appear on the Certificate)		2. TEMPORARY DESIGNATION OR EXPERIMENTAL NUMBER	3. VARIETY NAME
Terral-Norris Seed Company		TVX 5495	Terral TV5495
4. ADDRESS (Street and No., or R.F.D. No., City, State, and ZIP Code, and Country)		5. TELEPHONE (include area code)	FOR OFFICIAL USE ONLY PVPO NUMBER 9500257 DATE July 17, 1995 FILING AND EXAMINATION FEE: \$2325.00 + \$125.00 DATE 07/17/95 - 08/07/95 CERTIFICATION FEE: \$300.00 DATE 06/09/97
604 Blount Street Lake Providence, LA 71254		318-559-2840	
6. FAX (include area code)			
318-559-2888			
7. GENUS AND SPECIES NAME	8. FAMILY NAME (Botanical)		
Glycine max	Leguminosae		
9. CROP KIND NAME (Common name)			
Soybean			
10. IF THE APPLICANT NAMED IS NOT A "PERSON", GIVE FORM OF ORGANIZATION (corporation, partnership, association, etc.) (Common name)			
Corporation			
11. IF INCORPORATED, GIVE STATE OF INCORPORATION		12. DATE OF INCORPORATION	
Louisiana		1953	
13. NAME AND ADDRESS OF APPLICANT REPRESENTATIVE(S), IF ANY, TO SERVE IN THIS APPLICATION AND RECEIVE ALL PAPERS			14. TELEPHONE (include area code)
Thomas F. Terral P. O. Box 826 Lake Providence, LA 71254			
			15. FAX (include area code)

16. CHECK APPROPRIATE BOX FOR EACH ATTACHMENT SUBMITTED (Follow instructions on reverse)

- a. ☒ Exhibit A. Origin and Breeding History of the Variety
 b. ☒ Exhibit B. Statement of Distinctness
 c. ☒ Exhibit C. Objective Description of the Variety
 d. ☒ Exhibit D. Additional Description of the Variety
 e. ☒ Exhibit E. Statement of the Basis of the Applicant's Ownership
 f. ☒ Voucher Sample (2,500 viable untreated seeds or, for tuber propagated varieties verification that tissue culture will be deposited and maintained in a public repository)
 g. ☒ Filing and Examination Fee (\$2,450), made payable to "Treasurer of the United States" (Mail to PVPO)

17. DOES THE APPLICANT SPECIFY THAT SEED OF THIS VARIETY BE SOLD BY VARIETY NAME ONLY, AS A CLASS OF CERTIFIED SEED? (See Section 83(a) of the Plant Variety Protection Act?)
☐ YES (If "yes," answer items 18 and 19 below) ☒ NO (If "no," go to item 20)

18. DOES THE APPLICANT SPECIFY THAT SEED OF THIS VARIETY BE LIMITED AS TO NUMBER OF GENERATIONS?
☐ YES ☐ NO

19. IF "YES" TO ITEM 18, WHICH CLASSES OF PRODUCTION BEYOND BREEDER SEED?
☐ FOUNDATION ☐ REGISTERED ☐ CERTIFIED

20. HAS THE VARIETY OR A HYBRID PRODUCED FROM THE VARIETY BEEN RELEASED, USED, OFFERED FOR SALE, OR MARKETING IN THE U.S. OR OTHER COUNTRIES?
☐ YES (If "yes," give names of countries and dates) ☒ NO

21. The applicant(s) declare that a viable sample of basic seed of the variety will be furnished with application and will be replenished upon request in accordance with such regulations as may be applicable, or for a tuber propagated variety a tissue culture will be deposited in a public repository and maintained for the duration of the certificate.

The undersigned applicant(s) is(are) the owner(s) of this sexually reproduced or tuber propagated plant variety, and believe(s) that the variety is new, distinct, uniform, and stable as required in Section 41, and is entitled to protection under the provisions of Section 42 of the Plant Variety Protection Act.

Applicant(s) is(are) informed that false representation herein can jeopardize protection and result in penalties.

SIGNATURE OF APPLICANT (Owner(s))		SIGNATURE OF APPLICANT (Owner(s))	
Thomas F. Terral			
NAME (Please print or type)		NAME (Please print or type)	
Thomas F. Terral			
CAPACITY OR TITLE	DATE	CAPACITY OR TITLE	DATE
President	7-28-95		

EXHIBIT A

TERRAL-NORRIS SEED COMPANY'S APPLICATION FOR TERRAL TV 5495

ORIGIN AND BREEDING HISTORY

- 1985 - Cross made between DP 415 and A 5980
- 1986 - F₁ grown in field
- 1987 - F₂ advanced to F₄ in winter nursery and USA
- 1988 - F₄ plant selections pulled
- 1989 - An F₅ plant row 89-45646 was selected, composited and determined to be stable and breeding true for major characteristics listed in Exhibit C of this application. No variants were known or observed at this time.
- 1990 - Entered into midsouth preliminary tests
- 1991-92 - Tested in Advanced yield tests across the midsouth and southeast at 7 locations in 1991 and 14 locations in 1992. Seed increase was begun and off-type plants were removed from the seed stocks.
- 1993 - Tested again at 12 locations across the midsouth and southeast and a few state trials
- 1994 - Tested broadly in state experimental station trials.
- 1995 - Released as Terral TV 5495.

EXHIBIT B

TERRAL SEED, INC. APPLICATION FOR TERRAL TV5495

To our knowledge Terral TV5495 most closely resembles A 5980, Terra-Vig 5555, and DP 3589. It differs from A 5980, Terra-Vig 5555, and DP 3589, but is not necessarily restricted to the following:

1. Terral TV5495 differs from A5980 in that Terral TV5495 is resistant to stem canker and A 5980 is susceptible.
2. Terral TV5495 differs from Terra-Vig 5555 in that Terral TV5495 excludes chlorine from its roots and is tolerant to high chloride soils whereas Terra-Vig 5555 includes chlorine in its roots and is sensitive to high chloride soils and DP 3589 segregates for chloride sensitivity.
3. 'Terral TV5495 is significantly shorter than 'DP 3589'(see attached data sheet).

Terral TV5495 31 inches tall, DP 3589 37 inches tall ($LSD_{0.10} 2$, $CV=11.9\%$).

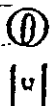
OBJECTIVE DESCRIPTION OF VARIETY
SOYBEAN (*Glycine max* L.)

NAME OF APPLICANT(S) Terral-Norris Seed Company	TEMPORARY DESIGNATION TVX 5495	VARIETY NAME Terral TV 5495
ADDRESS (Street and No., or R.F.D. No., City, State, and Zip Code) 604 Blount Street Lake Providence, LA 71254		FOR OFFICIAL USE ONLY PVPO NUMBER 9500257

Choose the appropriate response which characterizes the variety in the features described below. When the number of significant digits in your answer is fewer than the number of boxes provided, place a zero in the first box when number is 9 or less (e.g., 0 9). Starred characters ★ are considered fundamental to an adequate soybean variety description. Other characters should be described when information is available.

1. SEED SHAPE:

2



1 - Spherical (L/W, L/T, and T/W ratios = < 1.2)
3 - Elongate (L/T ratio > 1.2; T/W = < 1.2)

2 - Spherical Flattened (L/W ratio > 1.2; L/T ratio = < 1.2)
4 - Elongate Flattened (L/T ratio > 1.2; T/W > 1.2)

★ 2. SEED COAT COLOR: (Mature Seed)

1

1 - Yellow 2 - Green 3 - Brown 4 - Black 5 - Other (Specify)

3. SEED COAT LUSTER: (Mature Hand Shelled Seed)

2

1 - Dull ('Corsoy 79'; 'Braxton') 2 - Shiny ('Nebsoy'; 'Gasoy 17')

★ 4. SEED SIZE: (Mature Seed)

1 4

Grams per 100 seeds

★ 5. HILUM COLOR: (Mature Seed)

6

1 - Buff 2 - Yellow 3 - Brown 4 - Gray 5 - Imperfect Black 6 - Black 7 - Other (Specify)

★ 6. COTYLEDON COLOR: (Mature Seed)

1

1 - Yellow 2 - Green

★ 7. SEED PROTEIN PEROXIDASE ACTIVITY:

1

1 - Low 2 - High

★ 8. SEED PROTEIN ELECTROPHORETIC BAND:

1

1 - Type A (SP1^a) 2 - Type B (SP1^b)

★ 9. HYPOCOTYL COLOR:

3

1 - Green only ('Evans'; 'Davis') 2 - Green with bronze band below cotyledons ('Woodworth'; 'Tracy')
3 - Light Purple below cotyledons ('Beeson'; 'Pickett 71')
4 - Dark Purple extending to unifoliate leaves ('Hodgson'; 'Coker Hampton 266A')

★ 10. LEAFLET SHAPE:

3

1 - Lancolate 2 - Oval 3 - Ovate 4 - Other (Specify)

11. LEAFLET SIZE:

2 - Medium ('Corsoy 79'; 'Gasoy 17')

12. LEAF COLOR:

2 - Medium Green ('Corsoy 79'; 'Braxton')

★ 13. FLOWER COLOR:

3 - White with purple throat

* 14. POD COLOR:

3 - Black

* 15. PLANT PUBESCENCE COLOR:

2 - Brown (Tawny)

16. PLANT TYPES:

2 - Intermediate ('Amcor'; 'Braxton')

★ 17. PLANT HABIT:

2 - Semi-Determinate [Will]

3 - Indeterminate ('Nebsoy'; 'Improved Pelican')

★ 18. MATURITY GROUP:

g - y

• 13 - X

★ 19. DISEASE REACTION: (Enter 0 - Not Tested; 1 - Susceptible; 2 - Resistant)

BACTERIAL DISEASES:

Bacterial Pustule (*Xanthomonas phaeoli* var. *sojensis*)

Bacterial Blight (*Pseudomonas glycinea*)

Wildfire (*Pseudomonas tabaci*)

FUNGAL DISEASES:

Brown Spot (*Septoria glycines*)

Frogeye Leaf Spot (*Cercospora sojina*)

Race 1

Place 2

Race 3

Race 4

Race 5

Other (Specify)

Target Spot (*Corynespora cassiicola*)Downy Mildew (*Peronospora trifoliorum* var. *manthurali*)

Powdery Mildew (*Microsphaera diffusa*)

Brown Stem Rot (*Cephalosporium gregatum*)

Stem Canker (*Diaporthe phaseolorum* var. *caulivora*)

19. DISEASE REACTION: (Enter 0 = Not Tested; 1 = Susceptible; 2 = Resistant) (Continued)

9500257

FUNGAL DISEASES: (Continued)

- ★ ☐ 0 Pod and Stem Blight (*Diaporthe phaseolorum* var. *sojae*)
- ☐ 0 Purple Seed Stain (*Cercospora kikuchii*)
- ☐ 0 Rhizoctonia Root Rot (*Rhizoctonia solani*)
- Phytophthora Rot (*Phytophthora megasperma* var. *sojae*)
- ★ ☐ 1 Race 1 ☐ Race 2 ☐ Race 3 ☐ Race 4 ☐ Race 5 ☐ Race 6 ☐ Race 7
- ☐ Race 8 ☐ Race 9 ☐ Other (Specify) _____

VIRAL DISEASES:

- ☐ 0 Bud Blight (Tobacco Ringspot Virus)
- ☐ 0 Yellow Mosaic (Bean Yellow Mosaic Virus)
- ★ ☐ 0 Cowpea Mosaic (Cowpea Chlorotic Virus)
- ☐ 0 Pod Mottle (Bean Pod Mottle Virus)
- ★ ☐ 2 Seed Mottle (Soybean Mosaic Virus)

NEMATODE DISEASES:

- Soybean Cyst Nematode (*Heterodera glycines*)
- ★ ☐ Race 1 ☐ Race 2 ☐ 2 Race 3 ☐ Race 4 ☐ 1 Other (Specify) Race 14
- ☐ 0 Lance Nematode (*Hoplolaimus Colonus*)
- ★ ☐ 1 Southern Root Knot Nematode (*Meloidogyne incognita*)
- ★ ☐ 0 Northern Root Knot Nematode (*Meloidogyne Hapla*)
- ☐ 0 Peanut Root Knot Nematode (*Meloidogyne arenaria*)
- ☐ 0 Reniform Nematode (*Rotylenchulus reniformis*)
- ☐ OTHER DISEASE NOT ON FORM (Specify): _____

20. PHYSIOLOGICAL RESPONSES: (Enter 0 = Not Tested; 1 = Susceptible; 2 = Resistant)

- ★ ☐ 1 Iron Chlorosis on Calcareous Soil
- ☐ 2 Other (Specify) High chloride soils

21. INSECT REACTION: (Enter 0 = Not Tested; 1 = Susceptible; 2 = Resistant)

- ☐ 1 Mexican Bean Beetle (*Epilachna varivestis*)
- ☐ 2 Potato Leaf Hopper (*Empoasca fabae*)
- ☐ Other (Specify) _____

22. INDICATE WHICH VARIETY MOST CLOSELY RESEMBLES THAT SUBMITTED.

CHARACTER	NAME OF VARIETY	CHARACTER	NAME OF VARIETY
Plant Shape	DP 3589	Seed Coat Luster	TV 5555
Leaf Shape	DP 3589	Seed Size	TV 5555
Leaf Color	TRACY	Seed Shape	DP 3589
Leaf Size	DP 3589	Seedling Pigmentation	DP 3589

95002511

21. GIVE DATA FOR SUBMITTED AND SIMILAR STANDARD VARIETY: Paired Comparison Data

VARIETY	NO. OF DAYS MATURITY	PLANT LODGING SCORE	CM PLANT HEIGHT	LEAFLET SIZE		SEED CONTENT		SEED SIZE G/100 SEEDS	NO. SEEDS/POD
				CM Width	CM Length	% Protein	% Oil		
rral TV 5495 Submitted	130	2.4	83			37.7	17.3	14.2	
DP 3589 Name of Similar Variety	134	2.2	91			36.7	18.2	15.1	

PUBLICATIONS USEFUL AS REFERENCE AIDS FOR COMPLETING THIS FORM:

1. Oldwell, B.E., ed. 1973. Soybeans: Improvement, Production, and Uses. Amer. Soc. Agron. Monograph No. 16.
2. Buttery, B.R. and R.J. Buzzell. 1968. Peroxidase activity in seeds of soybean varieties. Crop Sci., 8: 722-725.
3. Hymowitz, T. 1973. Electrophoretic analysis of SBTi-A₂ in the USDA soybean germplasm collection. Crop Sci., 13: 420-421.
4. Payne, R.C. and L.F. Morris. 1976. Differentiation of soybean cultivars by seedling pigmentation patterns. J. Seed Technol. 1: 1-19.

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EXHIBIT D

TERRAL-NORRIS SEED COMPANY'S APPLICATION FOR TERRAL TV 5495

ADDITIONAL DESCRIPTION OF VARIETY

Terral TV 5495 is an F₄ selection composited in the F₅ generation from the cross DP 415 X A 5980. It has shown higher yield potential than DP 105, Hutcheson or DP 415.

Terral TV 5495 is mid-group V maturity with purple flowers, tawny pubescence and tan pods. Seeds are shiny yellow with black hila averaging 3200 seeds per pound. Terral TV 5495 averages 2 days later than DP 415 and 4 days earlier than DP 105. It has averaged 3% and 5% higher in yield than DP 415 and DP 105, respectively.

Terral TV 5495 has resistance to race 3 soybean cyst nematode and tolerance to race 14. It shows resistance to stem canker, moderate resistance to aerial blight and tolerance to high chloride soils. Because of its taller height and good performance on clay and cyst infested soils, it will be a good mid-group V with adaptability to tougher conditions where additional height is needed.

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
SCIENCE AND TECHNOLOGY DIVISION - PLANT VARIETY PROTECTION OFFICE

EXHIBIT E
STATEMENT OF THE BASIS OF OWNERSHIP

The following statements are made in accordance with the Privacy Act of 1974 (5 U.S.C. 552a) and the Paperwork Reduction Act (PRA) of 1995.

Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). Information is held confidential until certificate is issued (7 U.S.C. 2426).

1. NAME OF APPLICANT(S) Terral Seed, Inc.	2. TEMPORARY DESIGNATION OR EXPERIMENTAL NUMBER Terral TVX5495	3. VARIETY NAME Terral TV5495
4. ADDRESS (Street and No., or R.F.D. No., City, State, and ZIP Code, and Country) P.O. Box 826 604 Blount St. Lake Providence, LA 71254	5. TELEPHONE (include area code) (318) 559-2840	6. FAX (include area code) (318) 559-2888
7. PVPO NUMBER		
8. Does the applicant own all rights to the variety? Mark an "X" in appropriate block. If no, please explain. <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		
9. Is the applicant (individual or company) a U.S. national or U.S. based company? If no, give name of country _____ <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		
10. Is the applicant the original breeder? If no, please answer the following: a. If original rights to variety were owned by individual(s): Is (are) the original breeder(s) a U.S. national(s)? If no, give name of country _____ <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO b. If original rights to variety were owned by a company: Is the original breeder(s) U.S. based company? If no, give name of country _____ <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		
11. Additional explanation on ownership (If needed, use reverse for extra space): Terral Seed, Inc. is the owner of Terral TV5495 through purchase of the variety.		

PLEASE NOTE:

Plant variety protection can be afforded only to owners (not licensees) who meet one of the following criteria:

1. If the rights to the variety are owned by the original breeder, that person must be a U.S. national, national of a UPOV member country, or national of a country which affords similar protection to nationals of the U.S. for the same genus and species.
2. If the rights to the variety are owned by the company which employed the original breeder(s), the company must be U.S. based, owned by nationals of a UPOV member country, or owned by nationals of a country which affords similar protection to nationals of the U.S. for the same genus and species.
3. If the applicant is an owner who is not the original breeder, both the original breeder and the applicant must meet one of the above criteria.

The original breeder may be the individual or company who directed final breeding. See Section 41(a)(2) of the Plant Variety Protection Act for definition.

Public reporting burden for this collection of information is estimated to average 10 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Department of Agriculture, Clearance Officer, OIRM, AG Box 7630, Jamie L. Whitten Building, Washington, D.C. 20250. When replying, refer to OMB No. 0581-0055 and form number in your letter.

Under the PRA of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

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